ANCHOR QEA

614 Magnolia Avenue
Ocean Springs, Mississippi 39564
Phone 228.818.9626
Fax 228.818.9631

September 18, 2012

Mr. Valmichael Leos
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Re: San Jacinto River Waste Pits Superfund Site
TCRA Cap Repair Plan Approval Letter
USEPA Region 6, CERCLA Docket No. 06-12-10
Project Number: 090557-01

Dear Mr. Leos:

This letter is written on behalf of the Site Respondents, McGinnes Industrial Maintenance Corporation and International Paper Company, relative to your letter on behalf of the U.S. Environmental Protection Agency (EPA) dated July 31, 2012 (July 31 Letter), approving the San Jacinto River Waste Pits Superfund Site Time Critical Removal Action (TCRA) Cap Repair Plan (Repair Plan). The Repair Plan was submitted on July 27. Per your request, confirmation of receipt of your July 31 Letter was provided via email on July 31.

The Respondents initiated and completed the cap repairs in accordance with the approved Repair Plan on August 1, 2, and 3, 2012. Daily reports of maintenance activities were submitted to EPA detailing the work activities. The Respondents subsequently prepared and submitted a report to EPA on August 27, summarizing the cap maintenance activities.

The Respondents are in agreement with your observation in the July 31 Letter that there has been no observed release of waste from the TCRA-capped Site and that there were no visual tears in the exposed geotextile fabric at the Site. These observations are consistent with observations made during Anchor QEA,LLC's Site inspections conducted between July 20 and 24, 2012. The general tenor of the July 31 Letter, however, is surprising in light of our

discussions at the Site on July 24 and in some respects is in direct conflict to those discussions. This letter responds to specific issues and statements contained in the July 31 Letter. In addition, per your request in the July 31 Letter, the Respondents are reviewing the design and construction of the TCRA Cap and will follow up with EPA on the results of this review in the near future.

In order to address the specific concerns raised in your letter, it is first appropriate to note that with respect to the TCRA Cap:

1. The cap cross section in the area of the erosion noted in the Repair Plan (referred to in the Repair Plan as the "Maintenance Area") consists of (from the lowest layer to the top layer):
    - 16-ounce (-oz) non-woven geotextile
    - 40-millimeter LLDPE geomembrane
    - 12-oz non-woven geotextile
    - 12-inch-thick layer of 6-inch d_{50} armor stone material
2. In the TCRA Operation Monitoring and Maintenance (OMM) Plan, EPA approved measures for routine maintenance, which included arrangements for addressing situations involving potential erosion of the armor stone material, such as the stockpiling for maintenance work of specific grades of the types of stone material approved by EPA for use during construction.

With these two key elements as a backdrop, we provide clarification on the following EPA statements:

1. **There is no evidence that the geotextile has "stretched considerably to accommodate the underlying bulge."** First, based on personal observation, the "bulge" existed when the geosynthetics (the geomembrane sandwiched by two layers of geotextile) were installed over the subgrade following clearing of the western berm. The bulge is simply an artifact of the materials the geosynthetics are covering. It, therefore, did not occur as a result of the erosion that resulted in movement of the top layer of armor stone material. Second, the materials selected for the geosynthetic separation layer are extremely durable and are specifically designed for use in "severe or harsh

survivability conditions."[1] More specifically, the minimum strength for the 12- and 16-oz geotextile exceeds the strength requirements for AASHTO Class 1 geotextile, AASHTO's highest rating. Finally, and as previously noted, the observed 12-oz geotextile is underlain by a 40-millimeter LLDPE geomembrane and a 16-oz geotextile liner, further ensuring that proper separation of the underlying material has been maintained.

2. **There is no evidence to conclude that the western berm is "unstable."** The Maintenance Area noted during the Site inspections and described in the Repair Plan is a discrete, isolated location near the top of the berm, and the erosion of the stone material observed in this location is indicative of surficial erosion of the finer grained materials. Conversely, if the issues noted were structural in nature, they would have manifested along slip planes at or beyond the toe of the western berm, which is clearly not the case here.

3. **It is not the case that Respondents have asked "to alter the construction and design of the cap" because Respondents intend to use armor cap material C rather than B/C to repair the cap.** The Respondents have not made a request to alter the design of the TCRA Cap and stand by the approved design. Nor have they made a request to alter the TCRA Cap's construction. The need for readily available contingent material for the maintenance of the TCRA Cap was contemplated and addressed in the OMM Plan. The OMM Plan provided that armor cap material C would be stockpiled at a nearby facility. By way of background, the A and B/C capping material is processed concrete. C and D capping material is natural rock, which has a higher specific gravity than the processed concrete; therefore, it is heavier on a unit volume basis. The C rock and the B/C processed concrete, however, have similar gradations/sizes. The C rock is large enough that it would be stable—for maintenance purposes—as a replacement for either A, B/C, or C rock (but not D rock). D rock, therefore, was also stockpiled per the OMM Plan, so that it would be available if maintenance work needed to be performed in an area with existing D rock. The Maintenance Area thus was repaired by using pre-approved, compatible aggregate that was stockpiled expressly for the purpose of TCRA Cap maintenance.

[1] Per the manufacturer's website (http://www.skaps.com/images/stories/pdf/GT112.pdf), the geotextile is capable of elongating more than 50 percent.

The C rock was placed at a slope of 2:1, or flatter, as provided for in the Removal Action Work Plan (Anchor QEA 2011). The fact that the Armor Rock C is denser than Armor Rock B/C is not a design change; it is a consequence of the nature of the previously stockpiled materials. It should also be noted that the specified gradation of the B/C Armor Rock and C Armor Rock are equivalent (see Table 3-1 of the OMM Plan). Use of Armor Rock B/C, which is not stockpiled locally, would have required significant lead time because of required chemistry and grain size testing prior to the import of this material to the Site and would have unnecessarily delayed the maintenance activity.

4. **The Respondents disagree that there has been any "increased potential threat to human health and the environment" due to the once-exposed geotextile that has now been covered as a result of the maintenance activities that occurred on August 1, 2, and 3, 2012**. As noted in our inspection report and as confirmed by EPA's observations, the top layer of geotextile fabric was intact and undamaged. In fact, and as previously discussed in further detail above, there are three distinct geosynthetic materials that are functioning to prevent exposure of the underlying berm and institutional controls remain in place limiting public access to the Site.

5. **The Respondents disagree with your characterization of the erosion as a "failure" of the cap system.** In an email dated July 23, 2012, you used the word "failure" with reference to the situation identified during the Site inspection on July 20. In our discussions during your site visit on July 24, we told you that there was no basis for use of the term "failure" and that the use of the term exaggerated and distorted what had occurred, which was erosion of the top layer of stone in a discrete area of the TCRA Cap that has already been repaired. We stated that a "cap failure" as understood by us and most forensics experts that evaluate these situations would not include these erosional features. The primary intent of the TCRA Cap (which consists of not only the stone but also the underlying geosynthetic layers) is the prevention of direct contact to the underlying waste materials. Thus, a true failure of the TCRA Cap would entail a release of waste from the Site. As you have observed, the top layer of geotextile that was exposed in discrete areas of the western berm remains intact and undamaged and no release of the underlying material has occurred. Further, the TCRA Cap in the vicinity of the western berm consists of three distinct geosynthetic materials, each one of which would individually meet the design criteria to prevent

direct contact with the underlying waste material. In summary, we do not regard use of the term failure with respect to this event to be appropriate.

Following your review of the enclosed information, we remain available to discuss these clarifications with you in further detail.

Regards,

David Keith
Project Coordinator
Anchor QEA, LLC

cc: Barbara Nann, EPA
Anne Foster, EPA
Jessica Hernandez, EPA
Philip Slowiak, IP
David Moreira, MIMC